

REMARKS

The Office Action of April 20, 2006 has been carefully studied. The claims in the case are 1-14 and no claims have yet to be allowed. Also it is seen that claim 1 is amended so as to provide clear antecedent basis for the zone containing the vertical conduits and the space between the vertical conduits and the outer wall of the reactor. Claims 10 and 11 are also amended in order to utilize conventional claim structure.

Before commenting on each individual reference, Applicants courteously point out that none of the references suggest the following feature of Applicants' claim 1

"A substantially vertical inner wall (30) located in the space comprised between the wall of the reactor and the zone occupied by the conduits, and defining with said outer wall an annular zone (28) for receiving at least the liquid phase from outside the reactor and which communicates with the central portion of the plate by means defining lower cross sections for flow (22)."

Note that "the lower cross sections for flow" in the claims are now set forth more as apparatus as means defining lower cross sections for flow.

With respect to the cited references, they are explicated, as follows:

Boyer et al. U.S. 2002/0020359 and U.S. 2002/0021991

Neither of these references suggest Applicants' vertical wall (30) located between the wall of the reactor and the zone occupied by the conduits, thereby defining an annular zone. In the description of these references set forth in the Office Action, it is not seen that there is any mention or suggestion of this important feature of Applicants' invention. In the absence thereof, it is respectfully submitted that the references do not properly constitute a proper basis for a rejection under 35 U.S.C. 102 or 35 U.S.C. 103.

Applicants' Co-Pending Application 10/024,382, now U.S. 7,029,638

The double patenting rejection is not proper because the present invention is unobvious over this reference. Aside from the lack of any vertical inner wall (30) located in the space

between the wall of the reactor in the zone occupied by conduits and defining an annular zone, the vertical conduits do not comprise lateral orifices disposed at different levels along the vertical wall of the conduits, allowing the gas phase and liquid phase to be introduced into the conduits at least partially in a separated manner. Accordingly, since the present structure is unobvious compared to the teachings set forth in the Assignee's older apparatus, it is respectfully submitted that there is proper basis to withdraw the double patenting rejection. The decision In re Aller is a decision relating to a process invention and would be relevant to only known result-effective variables. In the absence of a known result-effective variable, the decision In re Antonie 559 Fed 618, 195 USPQ 6, 9 (CCPA 1977) constitutes proper precedent.

Applicants' Co-Pending Application 10/619,557

In this reference, a different system for injecting liquid is set forth, referring to reference numeral 50 in the drawings. Accordingly, in addition to the differences pointed out in the Office Action, it is respectfully submitted that this reference nowise suggests the present system requiring a vertical inner wall (30) located in the space between the wall of the reactor and the zone occupied by conduits, and defining an annular zone. Accordingly, there is likewise a proper basis for a withdrawal of the double patenting rejection.

In the absence of a misunderstanding Applicants' invention and the references and in the further absence of a more pertinent reference, it appears that Applicants' claims are allowable over the prior art. As for the arguments set forth in the Office Action, in the absence of a teaching reference, Applicants respectfully disagree with such arguments. The stubborn fact remains that Applicants' claimed invention is both novel and unobvious over the cited references.

With respect to the dependent claims at issue, Applicants will refrain from a detailed analysis of same so as not to burden the record. However, Applicants do not necessarily acquiesce to any of the statements in the Office Action regarding the features in the dependent claims and reserve the right to rebut same, if ever necessary.

In view of the above remarks, favorable reconsideration is courteously requested.

The Commissioner is hereby authorized to charge any fees associated with this response or credit any overpayment to Deposit Account No. 13-3402.

Respectfully submitted,



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